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FILE 'HOME' ENTERED AT 09:30:58 ON 09 DEC 2008

=> fil.bec

COST IN U.S. DOLLARS

| SINCE FILE ENTRY | TOTAL SESSION |
|------------------|---------------|
| 0.63 | 0.63 |

FULL ESTIMATED COST

FILES 'MEDLINE, SCISEARCH, LIFESCI, BIOTECHDS, BIOSIS, EMBASE, HCAPLUS, NTIS, ESBIOBASE, BIOTECHNO, WPIDS' ENTERED AT 09:32:46 ON 09 DEC 2008
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11 FILES IN THE FILE LIST

=> s xylanase?(10a)(thermophil? or hyperthermo? or thermotol? or thermostab?)
FILE 'MEDLINE'

2135 XYLANASE?
11292 THERMOPHIL?
2738 HYPERTHERMO?
2363 THERMOTOL?
7943 THERMOSTAB?
L1 228 XYLANASE?(10A) (THERMOPHIL? OR HYPERTHERMO? OR THERMOTOL? OR THERMOSTAB?)

FILE 'SCISEARCH'

4817 XYLANASE?
18911 THERMOPHIL?
3726 HYPERTHERMO?
4260 THERMOTOL?
11335 THERMOSTAB?
L2 497 XYLANASE?(10A) (THERMOPHIL? OR HYPERTHERMO? OR THERMOTOL? OR THERMOSTAB?)

FILE 'LIFESCI'

2306 XYLANASE?
10538 THERMOPHIL?
1990 HYPERTHERMO?
1514 THERMOTOL?
5018 THERMOSTAB?
L3 304 XYLANASE?(10A) (THERMOPHIL? OR HYPERTHERMO? OR THERMOTOL? OR THERMOSTAB?)

FILE 'BIOTECHDS'

2913 XYLANASE?
6340 THERMOPHIL?
527 HYPERTHERMO?
539 THERMOTOL?
7492 THERMOSTAB?
L4 390 XYLANASE?(10A) (THERMOPHIL? OR HYPERTHERMO? OR THERMOTOL? OR THERMOSTAB?)

FILE 'BIOSIS'

5090 XYLANASE?
25359 THERMOPHIL?
3225 HYPERTHERMO?
4034 THERMOTOL?
13536 THERMOSTAB?
L5 449 XYLANASE?(10A) (THERMOPHIL? OR HYPERTHERMO? OR THERMOTOL? OR THERMOSTAB?)

FILE 'EMBASE'

2028 XYLANASE?
 11487 THERMOPHIL?
 2457 HYPERTHERMO?
 2010 THERMOTOL?
 16024 THERMOSTAB?
 L6 296 XYLANASE?(10A) (THERMOPHIL? OR HYPERTHERMO? OR THERMOTOL? OR THERMOSTAB?)

 FILE 'HCAPLUS'
 8813 XYLANASE?
 24182 THERMOPHIL?
 3560 HYPERTHERMO?
 3228 THERMOTOL?
 23435 THERMOSTAB?
 L7 730 XYLANASE?(10A) (THERMOPHIL? OR HYPERTHERMO? OR THERMOTOL? OR THERMOSTAB?)

 FILE 'NTIS'
 51 XYLANASE?
 500 THERMOPHIL?
 33 HYPERTHERMO?
 45 THERMOTOL?
 201 THERMOSTAB?
 L8 7 XYLANASE?(10A) (THERMOPHIL? OR HYPERTHERMO? OR THERMOTOL? OR THERMOSTAB?)

 FILE 'ESBIOBASE'
 2261 XYLANASE?
 8032 THERMOPHIL?
 2413 HYPERTHERMO?
 1625 THERMOTOL?
 4910 THERMOSTAB?
 L9 299 XYLANASE?(10A) (THERMOPHIL? OR HYPERTHERMO? OR THERMOTOL? OR THERMOSTAB?)

 FILE 'BIOTECHNO'
 1496 XYLANASE?
 6914 THERMOPHIL?
 1350 HYPERTHERMO?
 1034 THERMOTOL?
 6565 THERMOSTAB?
 L10 215 XYLANASE?(10A) (THERMOPHIL? OR HYPERTHERMO? OR THERMOTOL? OR THERMOSTAB?)

 FILE 'WPIDS'
 1463 XYLANASE?
 3310 THERMOPHIL?
 160 HYPERTHERMO?
 221 THERMOTOL?
 6228 THERMOSTAB?
 L11 50 XYLANASE?(10A) (THERMOPHIL? OR HYPERTHERMO? OR THERMOTOL? OR THERMOSTAB?)

 TOTAL FOR ALL FILES
 L12 3465 XYLANASE?(10A) (THERMOPHIL? OR HYPERTHERMO? OR THERMOTOL? OR THERMOSTAB?)

 => s xylanase?(10a)alkali?
 FILE 'MEDLINE'
 2135 XYLANASE?
 107927 ALKALI?
 L13 80 XYLANASE?(10A)ALKALI?

FILE 'SCISEARCH'
 4817 XYLANASE?
 167036 ALKALI?
L14 203 XYLANASE?(10A)ALKALI?

FILE 'LIFESCI'
 2306 XYLANASE?
 28149 ALKALI?
L15 127 XYLANASE?(10A)ALKALI?

FILE 'BIOTECHDS'
 2913 XYLANASE?
 10597 ALKALI?
L16 169 XYLANASE?(10A)ALKALI?

FILE 'BIOSIS'
 5090 XYLANASE?
 151124 ALKALI?
L17 173 XYLANASE?(10A)ALKALI?

FILE 'EMBASE'
 2028 XYLANASE?
 93130 ALKALI?
L18 109 XYLANASE?(10A)ALKALI?

FILE 'HCAPLUS'
 8813 XYLANASE?
 596189 ALKALI?
 444012 ALK
 26281 ALKY
 897361 ALKALI?
 (ALKALI? OR ALK OR ALKY)
L19 388 XYLANASE?(10A)ALKALI?

FILE 'NTIS'
 51 XYLANASE?
 13250 ALKALI?
L20 2 XYLANASE?(10A)ALKALI?

FILE 'ESBIOBASE'
 2261 XYLANASE?
 32350 ALKALI?
L21 141 XYLANASE?(10A)ALKALI?

FILE 'BIOTECHNO'
 1496 XYLANASE?
 21300 ALKALI?
L22 83 XYLANASE?(10A)ALKALI?

FILE 'WPIDS'
 1463 XYLANASE?
 321560 ALKALI?
L23 79 XYLANASE?(10A)ALKALI?

TOTAL FOR ALL FILES
L24 1554 XYLANASE?(10A) ALKALI?

=> s l12 and l24

FILE 'MEDLINE'
L25 23 L1 AND L13

FILE 'SCISEARCH'
L26 69 L2 AND L14

FILE 'LIFESCI'
L27 36 L3 AND L15

FILE 'BIOTECHDS'
L28 46 L4 AND L16

FILE 'BIOSIS'
L29 48 L5 AND L17

FILE 'EMBASE'
L30 33 L6 AND L18

FILE 'HCAPLUS'
L31 89 L7 AND L19

FILE 'NTIS'
L32 0 L8 AND L20

FILE 'ESBIOBASE'
L33 47 L9 AND L21

FILE 'BIOTECHNO'
L34 25 L10 AND L22

FILE 'WPIDS'
L35 6 L11 AND L23

TOTAL FOR ALL FILES
L36 422 L12 AND L24

=> s l36 not 2004-2008/pY

FILE 'MEDLINE'
3254962 2004-2008/PY
(20040000-20089999/PY)
L37 13 L25 NOT 2004-2008/PY

FILE 'SCISEARCH'
6074569 2004-2008/PY
(20040000-20089999/PY)
L38 42 L26 NOT 2004-2008/PY

FILE 'LIFESCI'
776856 2004-2008/PY
L39 21 L27 NOT 2004-2008/PY

FILE 'BIOTECHDS'
119822 2004-2008/PY
L40 33 L28 NOT 2004-2008/PY

FILE 'BIOSIS'
2845241 2004-2008/PY
L41 28 L29 NOT 2004-2008/PY

FILE 'EMBASE'
2810797 2004-2008/PY
L42 18 L30 NOT 2004-2008/PY

FILE 'HCAPLUS'
6593747 2004-2008/PY

L43 51 L31 NOT 2004-2008/PY

FILE 'NTIS'
81634 2004-2008/PY
L44 0 L32 NOT 2004-2008/PY

FILE 'ESBIOBASE'
1609791 2004-2008/PY
L45 27 L33 NOT 2004-2008/PY

FILE 'BIOTECHNO'
586 2004-2008/PY
L46 25 L34 NOT 2004-2008/PY

FILE 'WPIDS'
5682064 2004-2008/PY
L47 3 L35 NOT 2004-2008/PY

TOTAL FOR ALL FILES
L48 261 L36 NOT 2004-2008/PY

=> dup rem 148
PROCESSING COMPLETED FOR L48
L49 89 DUP REM L48 (172 DUPLICATES REMOVED)

=> d tot

L49 ANSWER 1 OF 89 Elsevier BIOBASE COPYRIGHT 2008 Elsevier Science B.V. on
STN
AN 2008108664 ESBIOBASE
TI Molecular characterization of multiple xylanase producing
thermophilic/thermotolerant fungi isolated from
composting materials
AU Sharma M.; Chadha B.S.; Kaur M.; Ghatora S.K.; Saini H.S.
CS B. S. Chadha, Department of Microbiology, Guru Nanak Dev University,
Amritsar, Punjab, India.
E-mail: chadhabs@yahoo.com
SO Letters in Applied Microbiology, (2008), 46/5 (526-535), 32 reference(s)
CODEN: LAMIE7 ISSN: 0266-8254 E-ISSN: 1472-765X
DT Journal; Article
CY United Kingdom
LA English
SL English

L49 ANSWER 2 OF 89 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation on
STN DUPLICATE 1
TI Thermostable and alkaline-tolerant microbial
cellulase-free xylanases produced from agricultural wastes and
the properties required for use in pulp bleaching bioprocesses: a review
SO PROCESS BIOCHEMISTRY, (30 APR 2003) Vol. 38, No. 9, pp. 1327-1340.
ISSN: 0032-9592.
AU Techapun C; Poosaran N; Watanabe M; Sasaki K (Reprint)
AN 2003:543080 SCISEARCH

L49 ANSWER 3 OF 89 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation on
STN
TI Production of xylanases from rice bran by Streptomyces actuosus A-151
SO ENZYME AND MICROBIAL TECHNOLOGY, (2 DEC 2003) Vol. 33, No. 7, pp. 917-925.
ISSN: 0141-0229.
AU Wang S L (Reprint); Yen Y H; Shih I L; Chang A C; Chang W T; Wu W C; Chai
Y D
AN 2003:1069584 SCISEARCH

L49 ANSWER 4 OF 89 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI Characterization of a family 11 xylanase from *Bacillus subtilis* B230 used for paper bleaching.
SO *Acta Crystallographica Section D Biological Crystallography*, (April 2003) Vol. 59, No. 4, pp. 627-636. print.
ISSN: 0907-4449.
AU Oakley, Aaron J.; Heinrich, Tatjana; Thompson, Colin A.; Wilce, Matthew C.
J. [Reprint Author]
AN 2003:253581 BIOSIS

L49 ANSWER 5 OF 89 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI Effect of *Bacillus circulans* D1 thermostable xylanase on biobleaching of eucalyptus kraft pulp
SO APPLIED BIOCHEMISTRY AND BIOTECHNOLOGY, (SPR 2003) Vol. 105, pp. 393-401.
ISSN: 0273-2289.
AU Bocchini D A; Damiano V B; Gomes E; Da Silva A (Reprint)
AN 2003:398916 SCISEARCH

L49 ANSWER 6 OF 89 HCAPLUS COPYRIGHT 2008 ACS on STN
TI Application of thermotolerant and alkaline-tolerant xylanase produced from agricultural wastes for pulp bleaching process and reductions of amounts of chlorine compounds in wastewater
SO Mizu Shori Gijutsu (2003), 44(6), 271-278
CODEN: MSYGAO; ISSN: 0026-7015
AU Sasaki, Ken; Techapun, Charin; Poosaran, Niyatrat
AN 2003:487363 HCAPLUS
DN 139:135090

L49 ANSWER 7 OF 89 HCAPLUS COPYRIGHT 2008 ACS on STN
TI Advances in alkaline and thermophilic xylanases
SO Zhongguo Shengwu Gongcheng Zazhi (2003), 23(7), 72-75, 88
CODEN: ZSGZAW; ISSN: 1671-8135
AU Xie, Fuhong; Li, Wenpeng; Zhang, Keqin
AN 2004:313894 HCAPLUS
DN 141:67100

L49 ANSWER 8 OF 89 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation on STN DUPLICATE 2
TI Overproduction of an alkali- and thermo-stable xylanase in tobacco chloroplasts and efficient recovery of the enzyme
SO MOLECULAR BREEDING, (JAN 2003) Vol. 11, No. 1, pp. 59-67.
ISSN: 1380-3743.
AU Leelavathi S; Gupta N; Maiti S; Ghosh A; Reddy V S (Reprint)
AN 2003:142329 SCISEARCH

L49 ANSWER 9 OF 89 BIOTECHDS COPYRIGHT 2008 THOMSON REUTERS on STN
TI Bleaching of chemical pulp involves, exposing chemical pulp to acidic bleaching stage to produce partially bleached pulp and treating with thermophilic, alkalophilic xylanase in alkaline extraction stage at preset condition;
pulp bleaching using recombinant enzyme
AU TOLAN J; POPOVICI C; FOODY P J
AN 2003-01501 BIOTECHDS
PI WO 2002052100 4 Jul 2002

L49 ANSWER 10 OF 89 BIOTECHDS COPYRIGHT 2008 THOMSON REUTERS on STN
TI Novel xylanase activity protein, useful in bleaching process of pulp and in food and animal feed industry, has enhanced thermostability and alkalophilicity;

recombinant enzyme production via plasmid expression useful for animal feedstuff

AU BENTZIEN J; DAHIYAT B
AN 2003-01486 BIOTECHDS
PI WO 2002038746 16 May 2002

L49 ANSWER 11 OF 89 MEDLINE on STN DUPLICATE 3
TI Thermostable and alkaline-tolerant cellulase-free xylanase produced by thermotolerant *Streptomyces* sp. Ab106.
SO Journal of bioscience and bioengineering, (2002) Vol. 93, No. 4, pp. 431-3.
Journal code: 100888800. ISSN: 1389-1723.
AU Techapun Charin; Charoenrat Thanakorn; Poosaran Naiyatat; Watanabe Masanori; Sasak Ken
AN 2005557533 MEDLINE

L49 ANSWER 12 OF 89 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI Employing chimeric xylanases to identify regions of an alkaline xylanase participating in enzyme activity at basic pH
SO JOURNAL OF BIOSCIENCE AND BIOENGINEERING, (NOV 2002) Vol. 94, No. 5, pp. 395-400.
ISSN: 1389-1723.
AU Nishimoto M; Kitaoka M (Reprint); Hayashi K
AN 2003:96848 SCISEARCH

L49 ANSWER 13 OF 89 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI Enzymatic properties of a neutral endo-1,3(4)-beta-xylanase Xyl II from *Bacillus subtilis*
SO JOURNAL OF BIOTECHNOLOGY, (11 APR 2002) Vol. 94, No. 3, pp. 265-275.
ISSN: 0168-1656.
AU Sa-Pereira P (Reprint); Costa-Ferreira M; Aires-Barros M R
AN 2002:276532 SCISEARCH

L49 ANSWER 14 OF 89 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation on STN DUPLICATE 4
TI Cellulase-free thermostable alkaline xylanase from thermophilic and alkalophilic *Bacillus* sp JB-99
SO JOURNAL OF MICROBIOLOGY AND BIOTECHNOLOGY, (FEB 2002) Vol. 12, No. 1, pp. 153-156.
ISSN: 1017-7825.
AU Johnvesly B; Virupakshi S; Patil G N; Ramalingam; Naik G R (Reprint)
AN 2002:241601 SCISEARCH

L49 ANSWER 15 OF 89 MEDLINE on STN DUPLICATE 5
TI Engineering of multiple arginines into the Ser/Thr surface of *Trichoderma reesei* endo-1,4-beta-xylanase II increases the thermotolerance and shifts the pH optimum towards alkaline pH.
SO Protein engineering, (2002 Feb) Vol. 15, No. 2, pp. 141-5.
Journal code: 8801484. ISSN: 0269-2139.
AU Turunen Ossi; Vuorio Mika; Fenel Fred; Leisola Matti
AN 2002184634 MEDLINE

L49 ANSWER 16 OF 89 MEDLINE on STN DUPLICATE 6
TI The endoxylanases from family 11: computer analysis of protein sequences reveals important structural and phylogenetic relationships.
SO Journal of biotechnology, (2002 May 9) Vol. 95, No. 2, pp. 109-31.
Journal code: 8411927. ISSN: 0168-1656.

AU Sapag Amalia; Wouters Johan; Lambert Christophe; de Ioannes Pablo;
Eyzaguirre Jaime; Depiereux Eric
AN 2002179500 MEDLINE

L49 ANSWER 17 OF 89 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation on STN
DUPLICATE 7

TI Optimization of thermostable and alkaline-tolerant cellulase-free xylanase production from agricultural waste by thermotolerant *Streptomyces* sp Ab106, using the central composite experimental design

SO BIOCHEMICAL ENGINEERING JOURNAL, (NOV 2002) Vol. 12, No. 2, pp. 99-105.
ISSN: 1369-703X.

AU Techapun C; Charoenrat T; Watanabe M; Sasaki K (Reprint); Poosaran N
AN 2002:870007 SCISEARCH

L49 ANSWER 18 OF 89 HCAPLUS COPYRIGHT 2008 ACS on STN
TI Computer directed High-Throughput Screening for improved enzymatic catalysis: Towards the rationale design of a thermostable, alkaliophilic xylanase

SO Abstracts of Papers, 223rd ACS National Meeting, Orlando, FL, United States, April 7-11, 2002 (2002), CELL-092 Publisher: American Chemical Society, Washington, D. C.
CODEN: 69CKQP

AU Bentzien, Jorg; Hayes, Robert; Muchhal, Umesh; O'Keefe, Donald; Dahiyat, Bassil
AN 2002:186502 HCAPLUS

L49 ANSWER 19 OF 89 MEDLINE on STN
DUPLICATE 8

TI Properties and application of a partially purified alkaline xylanase from an alkaliophilic fungus *Aspergillus nidulans* KK-99.

SO Bioresource technology, (2002 Oct) Vol. 85, No. 1, pp. 39-42.
Journal code: 9889523. ISSN: 0960-8524.

AU Taneja Kavita; Gupta Saurabh; Kuhad Ramesh Chander
AN 2002397711 MEDLINE

L49 ANSWER 20 OF 89 HCAPLUS COPYRIGHT 2008 ACS on STN
TI In-situ solid-state fermentation and utilization of xylanase in pulp bleaching

SO Abstracts of Papers, 223rd ACS National Meeting, Orlando, FL, United States, April 7-11, 2002 (2002), CELL-039 Publisher: American Chemical Society, Washington, D. C.
CODEN: 69CKQP

AU Szendefy, Judit; Szakacs, George; Christov, Lew
AN 2002:186449 HCAPLUS

L49 ANSWER 21 OF 89 HCAPLUS COPYRIGHT 2008 ACS on STN
TI Use of biological agents for pulping and bleaching in pulp and paper industry

SO IPPTA (2002), 14(4), 29-31
CODEN: IPPTDO; ISSN: 0379-5462

AU Sapre, M.; Jha, H.; Patil, M. B.; Dhake, J. D.
AN 2003:27382 HCAPLUS
DN 138:370507

L49 ANSWER 22 OF 89 LIFESCI COPYRIGHT 2008 CSA on STN
TI Engineering of multiple arginines into the Ser/Thr surface of *Trichoderma reesei* endo-1,4-[beta]-xylanase II increases the thermotolerance and shifts the pH optimum towards alkaline pH

SO Protein Engineering, (20020200) vol. 15, no. 2, 141.
ISSN: 0269-2139.

AU Turunen, Ossi; Vuorio, Mika; Fenel, Fred; Leisola, Matti

AN 2008:69021 LIFESCI

L49 ANSWER 23 OF 89 HCAPLUS COPYRIGHT 2008 ACS on STN
TI Recombinant Bacillus and fermentation process for preparation of thermostable alkali-stable xylanase
SO Indian, 35 pp.
CODEN: INXXAP
IN Gupta, Naveen; Ghosh, Amit
AN 2004:869800 HCAPLUS
DN 141:313041
PATENT NO. KIND DATE APPLICATION NO. DATE
----- -----
PI IN 185709 A1 20010414 IN 1996-DE2308 19961025

L49 ANSWER 24 OF 89 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI Directed evolution to produce an alkalophilic variant from a Neocallimastix patriciarum xylanase
SO CANADIAN JOURNAL OF MICROBIOLOGY, (DEC 2001) Vol. 47, No. 12, pp. 1088-1094.
ISSN: 0008-4166.
AU Chen Y L; Tang T Y; Cheng K J (Reprint)
AN 2002:32328 SCISEARCH

L49 ANSWER 25 OF 89 WPIDS COPYRIGHT 2008 THOMSON REUTERS on STN
TI Non naturally occurring XA protein with enhanced thermophilicity, alkalophilicity or thermostability relative to the naturally occurring Bacillus circulans xylanase is used in an agent for bleaching pulp
PI WO 2000068396 A2 20001116 (200066)* EN 114[20]
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL
OA PT SD SE SL SZ TZ UG ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM DZ
EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC
LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI
SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW
AU 2000051327 A 20001121 (200112) EN
EP 1179075 A2 20020213 (200219) EN
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT
RO SE SI
JP 2002543791 W 20021224 (200313) JA 156
IN BENTZIEN J M

L49 ANSWER 26 OF 89 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI Purification and partial characterization of a basic xylanase produced by thermoalkaliphilic Bacillus sp strain TAR-1
SO BIOSCIENCE BIOTECHNOLOGY AND BIOCHEMISTRY, (APR 2000) Vol. 64, No. 4, pp. 887-890.
ISSN: 0916-8451.
AU Takahashi H; Nakai R; Nakamura S (Reprint)
AN 2000:340808 SCISEARCH

L49 ANSWER 27 OF 89 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation on STN DUPLICATE 9
TI Enhanced production, purification and characterisation of a novel cellulase-poor thermostable, alkalitolerant xylanase from Bacillus circulans AB 16
SO PROCESS BIOCHEMISTRY, (MAR 2000) Vol. 35, No. 8, pp. 849-856.
ISSN: 0032-9592.
AU Dhillon A; Gupta J K; Khanna S (Reprint)
AN 2000:266722 SCISEARCH

L49 ANSWER 28 OF 89 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation on STN

TI Production and characterization of thermostable xylanase and pectinase from *Streptomyces* sp QG-11-3

SO JOURNAL OF INDUSTRIAL MICROBIOLOGY & BIOTECHNOLOGY, (JUN 2000) Vol. 24, No. 6, pp. 396-402.
ISSN: 1367-5435.

AU Beg Q K (Reprint); Bhushan B; Kapoor M; Hoondal G S

AN 2000:616369 SCISEARCH

L49 ANSWER 29 OF 89 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation on STN DUPLICATE 10

TI Isolation, purification and characterization of xylanase from *Staphylococcus* sp. SG-13 and its application in biobleaching of kraft pulp

SO JOURNAL OF APPLIED MICROBIOLOGY, (FEB 2000) Vol. 88, No. 2, pp. 325-334.
ISSN: 1364-5072.

AU Gupta S; Bhushan B; Hoondal G S (Reprint)

AN 2000:224873 SCISEARCH

L49 ANSWER 30 OF 89 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation on STN DUPLICATE 11

TI Production of a thermostable alkali-tolerant xylanase from *Bacillus circulans* AB 16 grown on wheat straw

SO WORLD JOURNAL OF MICROBIOLOGY & BIOTECHNOLOGY, (JUN 2000) Vol. 16, No. 4, pp. 325-327.
ISSN: 0959-3993.

AU Dhillon A; Khanna S (Reprint)

AN 2000:698100 SCISEARCH

L49 ANSWER 31 OF 89 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation on STN DUPLICATE 12

TI A cellulase-poor, thermostable, alkalitolerant xylanase produced by *Bacillus circulans* AB 16 grown on rice straw and its application in biobleaching of eucalyptus pulp

SO BIORESOURCE TECHNOLOGY, (JUL 2000) Vol. 73, No. 3, pp. 273-277.
ISSN: 0960-8524.

AU Dhillon A; Gupta J K; Jauhari B M; Khanna S (Reprint)

AN 2000:287403 SCISEARCH

L49 ANSWER 32 OF 89 HCAPLUS COPYRIGHT 2008 ACS on STN

TI A new record of a bacterial alkaline thermostable xylanase from an Egyptian soil

SO Egyptian Journal of Biotechnology (2000), 7, 193-205
CODEN: EJBIF7; ISSN: 1110-6093

AU Shabeb, M. S. A.

AN 2000:194949 HCAPLUS

DN 133:2286

L49 ANSWER 33 OF 89 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation on STN

TI Xylanase activity and thermostratification during the thermogenic phase of industrial composting in aerated trenches

SO WASTE MANAGEMENT & RESEARCH, (APR 2000) Vol. 18, No. 2, pp. 174-183.
ISSN: 0734-242X.

AU Lyon P F; Beffa T (Reprint); Fischer J L; Aragno M

AN 2000:271416 SCISEARCH

L49 ANSWER 34 OF 89 MEDLINE on STN DUPLICATE 13

TI Homology model of a novel xylanase: molecular basis for high-thermostability and alkaline stability.

SO Journal of biomolecular structure & dynamics, (2000 Aug) Vol. 18, No. 1,

pp. 137-44.
Journal code: 8404176. ISSN: 0739-1102.

AU Mande S S; Gupta N; Ghosh A; Mande S C
AN 2000465734 MEDLINE

L49 ANSWER 35 OF 89 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation on STN DUPLICATE 14
TI Immobilization of alkaliphilic *Bacillus* sp cells for xylanase production using batch and continuous culture
SO APPLIED BIOCHEMISTRY AND BIOTECHNOLOGY, (MAY 2000) Vol. 87, No. 2, pp. 95-101.
ISSN: 0273-2289.
AU Mamo G; Gessesse A (Reprint)
AN 2000:607893 SCISEARCH

L49 ANSWER 36 OF 89 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation on STN
TI Electroelution as a simple and fast protein purification method: isolation of an extracellular xylanase from *Bacillus* sp CCMI 966
SO ENZYME AND MICROBIAL TECHNOLOGY, (JUL 2000) Vol. 27, No. 1-2, pp. 95-99.
ISSN: 0141-0229.
AU Sa-Pereira P (Reprint); Duarte J; Costa-Ferreira M
AN 2000:486930 SCISEARCH

L49 ANSWER 37 OF 89 MEDLINE on STN DUPLICATE 15
TI Overproduction and characterization of seleno-methionine xylanase T-6.
SO Journal of biotechnology, (2000 Feb 28) Vol. 78, No. 1, pp. 83-6.
Journal code: 8411927. ISSN: 0168-1656.
AU Mechaly A; Teplitsky A; Belakhov V; Baasov T; Shoham G; Shoham Y
AN 2000167558 MEDLINE

L49 ANSWER 38 OF 89 MEDLINE on STN DUPLICATE 16
TI Extracellular xylanase production by two thermophilic alkali-tolerant *Bacillus* strains in batch and continuous cultures.
SO Zeitschrift fur Naturforschung. C, Journal of biosciences, (2000 Jan-Feb) Vol. 55, No. 1-2, pp. 66-9.
Journal code: 8912155. ISSN: 0341-0382.
AU Emanuilova E I; Dimitrov P L; Mandeva R D; Kambourova M S; Engibarov S A
AN 2000201709 MEDLINE

L49 ANSWER 39 OF 89 MEDLINE on STN DUPLICATE 17
TI Xylanase II from an alkaliphilic thermophilic *Bacillus* with a distinctly different structure from other xylanases: evolutionary relationship to alkaliphilic xylanases.
SO Biochemical and biophysical research communications, (1999 Oct 5) Vol. 263, No. 3, pp. 640-5.
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L49 ANSWER 40 OF 89 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation on STN DUPLICATE 18
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Te'o, V. S. J.

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DN 129:37189

OREF 129:7724h, 7725a

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L49 ANSWER 46 OF 89 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation on
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xylanase from *Bacillus amyloliquefaciens*

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CODEN: AEMIDF ISSN: 0099-2240
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thermostable alkaline endo-1,4-beta-D-
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CODEN: 0005P ISSN: 0067-2777
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application of molecular genetics to pulp bleaching
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A.; Morris, D.
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DN 126:20298
OREF 126:4171a,4174a

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e.g. thermophilic bacterium, psychrophilic bacterium, alkalophilic
bacterium, acidophilic bacterium, halophilic bacterium, barophilic
bacterium, etc. (conference report)
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AN 97:30694 LIFESCI

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L49 ANSWER 65 OF 89 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation on
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thermophilic *Bacillus* sp NCIM 59 in biobleaching of bagasse pulp
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AN 1996:853879 SCISEARCH

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CODEN: 64TXAU
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AN 1997:498246 HCAPLUS
DN 127:123139
OREF 127:23735a,23738a

L49 ANSWER 67 OF 89 HCAPLUS COPYRIGHT 2008 ACS on STN
TI A method for selecting xylanases useful for bleach boosting Eucalyptus
kraft pulp
SO Biotechnology in the Pulp and Paper Industry: Recent Advances in Applied
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Norman, K. W.
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DN 126:20286
OREF 126:4171a,4174a

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the gene encoding it
SO PCT Int. Appl., 31 pp.
CODEN: PIXXD2
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DN 123:106519

OREF 123:18863a,18866a

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| | W: FI, JP, NO
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
EP 728197 | A1 | 19960828 | EP 1995-900534 | 19941104 |
| | R: DE, DK, GB, NL
FI 9601885 | A | 19960703 | FI 1996-1885 | 19960503 |

L49 ANSWER 69 OF 89 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation on STN DUPLICATE 29

TI CHARACTERIZATION OF THE RECOMBINANT XYLANASES IN ESCHERICHIA-COLI FROM AN ALKALIPHILIC THERMOPHILIC BACILLUS SP NCIM-59

SO ENZYME AND MICROBIAL TECHNOLOGY, (NOV 1995) Vol. 17, No. 11, pp. 972-976.
ISSN: 0141-0229.

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L49 ANSWER 70 OF 89 LIFESCI COPYRIGHT 2008 CSA on STN

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SO PROCESS BIOCHEM., (1995) vol. 30, no. 8, pp. 705-709.
ISSN: 0032-9592.

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L49 ANSWER 71 OF 89 HCAPLUS COPYRIGHT 2008 ACS on STN

TI Cloning, sequencing and expression of an alkaline-tolerant xylanase gene from the extreme thermophile Dictyoglomus thermophilum sp. Rt46B.1. Potential for use as a kraft pulp pre-bleaching aid

SO International Symposium on Wood and Pulping Chemistry, 8th, Helsinki, June 6-9, 1995 (1995), Volume 2, 397-402 Publisher: Gummerus Kirjapaino Oy, Jyvaskyla, Finland.
CODEN: 65KDAY

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AN 1997:793354 HCAPLUS

DN 128:85703

OREF 128:16660h,16661a

L49 ANSWER 72 OF 89 HCAPLUS COPYRIGHT 2008 ACS on STN

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CODEN: 65KDAY

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AN 1997:793220 HCAPLUS

DN 128:85647

OREF 128:16645a,16648a

L49 ANSWER 73 OF 89 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation on STN DUPLICATE 30

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SO JOURNAL OF MOLECULAR CATALYSIS B-ENZYMATICS, (4 DEC 1995) Vol. 1, No. 1, pp. 7-15.

ISSN: 1381-1177.

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Horikoshi K

AN 1996:52298 SCISEARCH

L49 ANSWER 74 OF 89 LIFESCI COPYRIGHT 2008 CSA on STN
TI Five thermostable xylanases from *Microtetrasporea*
flexuosa for use in delignification and/or bleaching of pulp
SO (1995) . US Patent 5437992; US Cl. 435/200 435/252.1 435/278 435/822
536/124.
AN 97:5176 LIFESCI

L49 ANSWER 75 OF 89 BIOTECHDS COPYRIGHT 2008 THOMSON REUTERS on STN
TI Thermostable alkaline endo-1,4-beta-D-
xylanase production;
from *Bacillus* sp., for use in pulping and the paper industry
AN 1994-07122 BIOTECHDS
PI JP 06062839 8 Mar 1994

L49 ANSWER 76 OF 89 BIOTECHDS COPYRIGHT 2008 THOMSON REUTERS on STN
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Bacillus sp. thermostable and alkali-stable native
or recombinant endo-1,4-beta-D-xylanase production and
purification for use in the food, feedstuff and pulp industries
AN 1994-05939 BIOTECHDS
PI WO 9404664 3 Mar 1994

L49 ANSWER 77 OF 89 BIOTECHDS COPYRIGHT 2008 THOMSON REUTERS on STN
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thermostable alkaline protease, endo-1,4-beta-D-
xylanase and cellulase production for use in surfactant
composition, lignocellulose pulp treatment, etc.
AN 1994-03564 BIOTECHDS
PI WO 9401532 20 Jan 1994

L49 ANSWER 78 OF 89 HCPLUS COPYRIGHT 2008 ACS on STN
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alkaliphilic strains of *Bacillus* spp.
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CODEN: KAGIAU; ISSN: 0022-815X
AU Aono, Rikizo
AN 1995:393677 HCPLUS
DN 122:233924
OREF 122:42607a, 42610a

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ISSN: 0168-6445.
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BARTFAI T; VANDERLAAN J; ROSENBERG E; SHOHAM Y
AN 1994:207505 SCISEARCH

L49 ANSWER 80 OF 89 SCISEARCH COPYRIGHT (c) 2008 The Thomson Corporation on
STN DUPLICATE 33
TI THERMOPHILIC ALKALINE XYLANASE FROM NEWLY
ISOLATED ALKALIPHILIC AND THERMOPHILIC BACILLUS SP
STRAIN TAR-1
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78-81.

ISSN: 0916-8451.

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HORIKOSHI K

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L49 ANSWER 81 OF 89 BIOTECHDS COPYRIGHT 2008 THOMSON REUTERS on STN
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recombinant thermostable endo-1,4-beta-D-xylanase
production and characterization;
application in delignification and bleaching

AN 1993-14743 BIOTECHDS
PI WO 9319171 30 Sep 1993

L49 ANSWER 82 OF 89 MEDLINE on STN DUPLICATE 34
TI Cloning and extracellular expression in Escherichia coli of
xylanases from an alkaliphilic thermophilic
Bacillus sp. NCIM 59.
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Journal code: 7705721. ISSN: 0378-1097.

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AN 1993292908 MEDLINE

L49 ANSWER 83 OF 89 HCPLUS COPYRIGHT 2008 ACS on STN
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alkalophilic Bacillus sp. NG-27
SO Biotechnology Letters (1992), 14(11), 1045-6
CODEN: BILED3; ISSN: 0141-5492
AU Gupta, N.; Vohra, R. M.; Hoondal, G. S.
AN 1993:54852 HCPLUS
DN 118:54852
OREF 118:9716h,9717a

L49 ANSWER 84 OF 89 BIOTECHDS COPYRIGHT 2008 THOMSON REUTERS on STN
TI Production and characterization of a xylanase from a phytopathogenic
fungus, Bipolaris sorokiniana;
alkalophilic, thermostable endo-1,4-beta-D-xylanase
isolation, of potential use in the pulp and paper industry (conference
paper)
SO Prog.Biotechnol.; (1992) 7, 529-33
CODEN: PBITE3
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L49 ANSWER 85 OF 89 BIOTECHDS COPYRIGHT 2008 THOMSON REUTERS on STN
TI Comparison of thermostable xylanases having optimal
activities at acidic, neutral, and alkaline pH values;
recombinant endo-1,4-beta-D-xylanase preparation by
thermophilic bacterium gene expression in Thermoanaerobacter
ethanolicus; potential enhanced ethanol production (conference
abstract)
SO Abstr.Gen.Meet.Am.Soc.Microbiol.; (1992) 92 Meet., 312
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AN 1992-09381 BIOTECHDS

L49 ANSWER 86 OF 89 BIOTECHDS COPYRIGHT 2008 THOMSON REUTERS on STN
TI Extremely thermophilic cellulose and hemicellulose degrading bacteria
including isolates of the genus Dictyoglomus;
thermostable endo-1,4-beta-D-xylanase
characterization from Thermoanaerobium sp., Clostridium
thermohydrosulfuricum and Dictyoglomus thermophilum
(conference abstract)
SO Thermophiles Sci.Technol.; (1992) 54

CODEN: 9999R
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 AN 1994-08890 BIOTECHDS

L49 ANSWER 87 OF 89 HCAPLUS COPYRIGHT 2008 ACS on STN
 TI High-molecular weight substance-degrading enzymes-inducing factor and its gene cloning
 SO Jpn. Kokai Tokkyo Koho, 9 pp.
 CODEN: JKXXAF
 IN Imanaka, Tadayuki; Nishiya, Yoshiaki; Sogabe, Yukihiro
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 DN 115:129125
 OREF 115:21997a,22000a

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| PI JP 03061489 | A | 19910318 | JP 1989-194307 | 19890728 |
| JP 07067392 | B | 19950726 | | |

L49 ANSWER 88 OF 89 BIOTECHDS COPYRIGHT 2008 THOMSON REUTERS on STN
 TI Production and characterization of xylanase from *Bacillus thermoalkalophilus* grown on agricultural wastes; thermostable endo-1,4-beta-D-xylanase preparation on rice husk or bagasse culture medium; lignocellulose degradation
 SO Appl.Microbiol.Biotechnol.; (1990) 34, 1, 141-44
 CODEN: EJABDD
 AU Rajaram S; *Varma A
 AN 1991-04701 BIOTECHDS

L49 ANSWER 89 OF 89 BIOTECHDS COPYRIGHT 2008 THOMSON REUTERS on STN
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 AN 1990-05323 BIOTECHDS
 PI JP 01309684 14 Dec 1989

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